

FIGURE 1: REPRESENTATIVE ORGANOSILANES

R = functional group of chemical interest  
 A = non-reactive group  
 X = hydrolyzable group

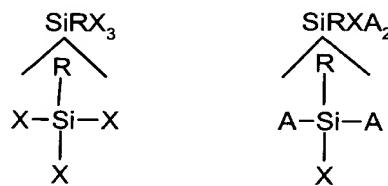


FIGURE 2: HYDROLYSIS OF AN ORGANOSILANE TO PRODUCE AN ORGANOSILANOL

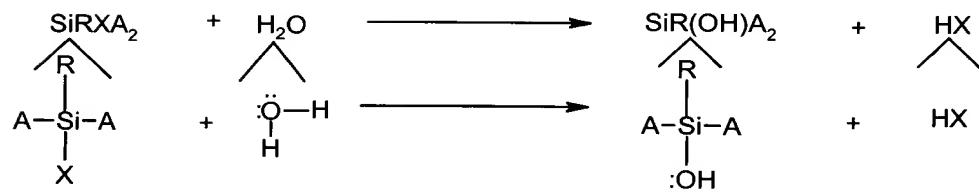


FIGURE 3: SILANOL CONDENSATION REACTION

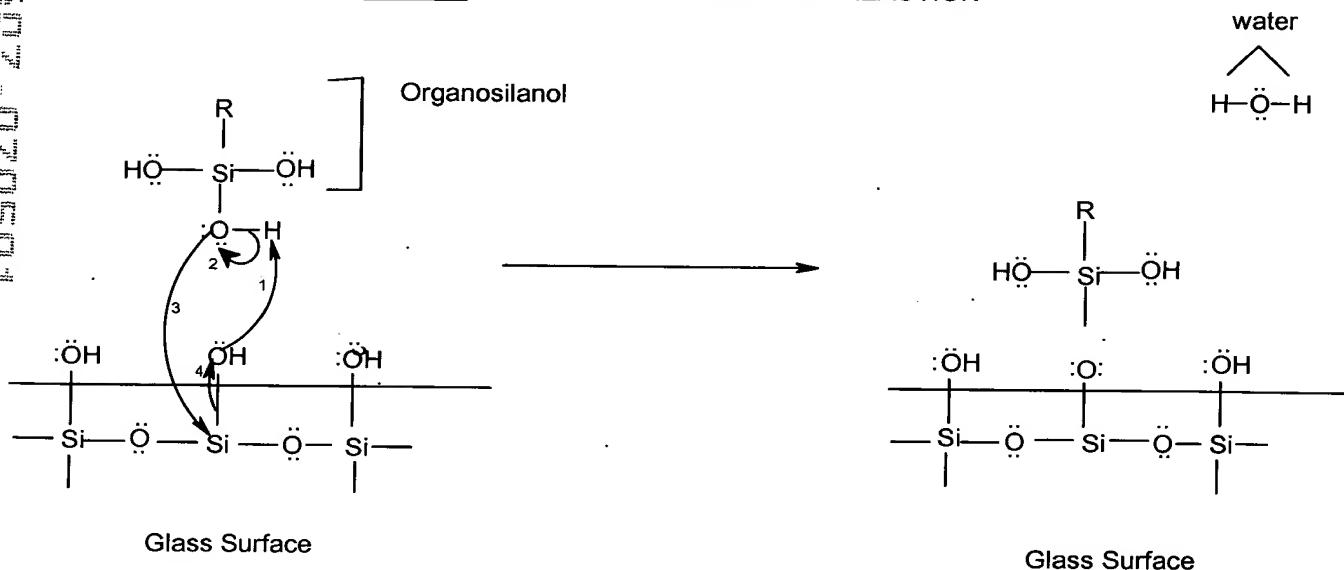
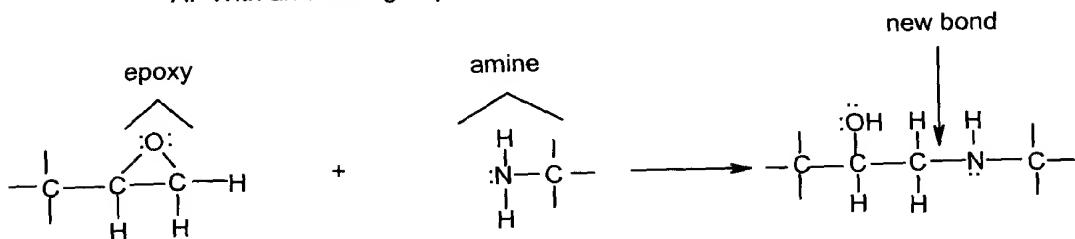


FIGURE 4: REACTIONS OF EPOXY GROUPS

### A: With an amine group



### B: With a carboxyl group

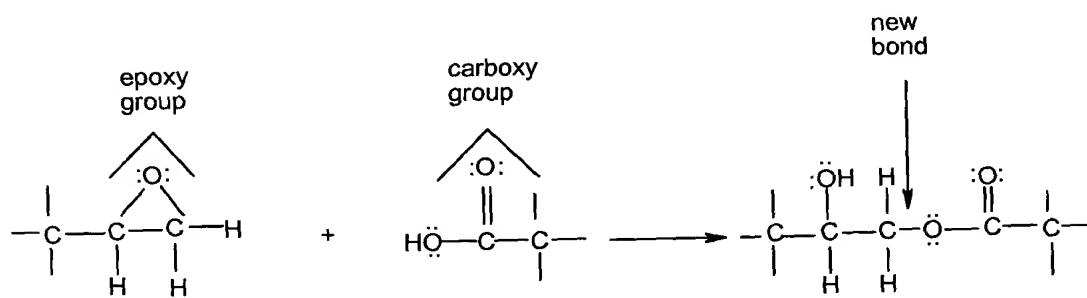


FIGURE 5A: Bond using 3-Amino propyl triethoxysilane and polyamido polamine epichlorohydrin polymer.

© 1996-2000, 2002-2003, 2005-2006, 2008-2009, 2011-2012, 2014-2015, 2017-2018, 2020-2021, 2023-2024, 2026-2027, 2029-2030, 2032-2033, 2035-2036, 2038-2039, 2041-2042, 2044-2045, 2047-2048, 2050-2051, 2053-2054, 2056-2057, 2059-2060, 2062-2063, 2065-2066, 2068-2069, 2071-2072, 2074-2075, 2077-2078, 2080-2081, 2083-2084, 2086-2087, 2089-2090, 2092-2093, 2095-2096, 2098-2099, 2101-2102, 2104-2105, 2107-2108, 2110-2111, 2113-2114, 2116-2117, 2119-2120, 2122-2123, 2125-2126, 2128-2129, 2131-2132, 2134-2135, 2137-2138, 2140-2141, 2143-2144, 2146-2147, 2149-2150, 2152-2153, 2155-2156, 2158-2159, 2161-2162, 2164-2165, 2167-2168, 2170-2171, 2173-2174, 2176-2177, 2179-2180, 2182-2183, 2185-2186, 2188-2189, 2191-2192, 2194-2195, 2197-2198, 2200-2201, 2203-2204, 2206-2207, 2209-2210, 2212-2213, 2215-2216, 2218-2219, 2221-2222, 2224-2225, 2227-2228, 2230-2231, 2233-2234, 2236-2237, 2239-2240, 2242-2243, 2245-2246, 2248-2249, 2251-2252, 2254-2255, 2257-2258, 2260-2261, 2263-2264, 2266-2267, 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**FIGURE 5B:** Bond using 10-carbomethoxy-decyl-dimethyl chlorosilane and polyamido polyamine epichlorohydrin polymer.

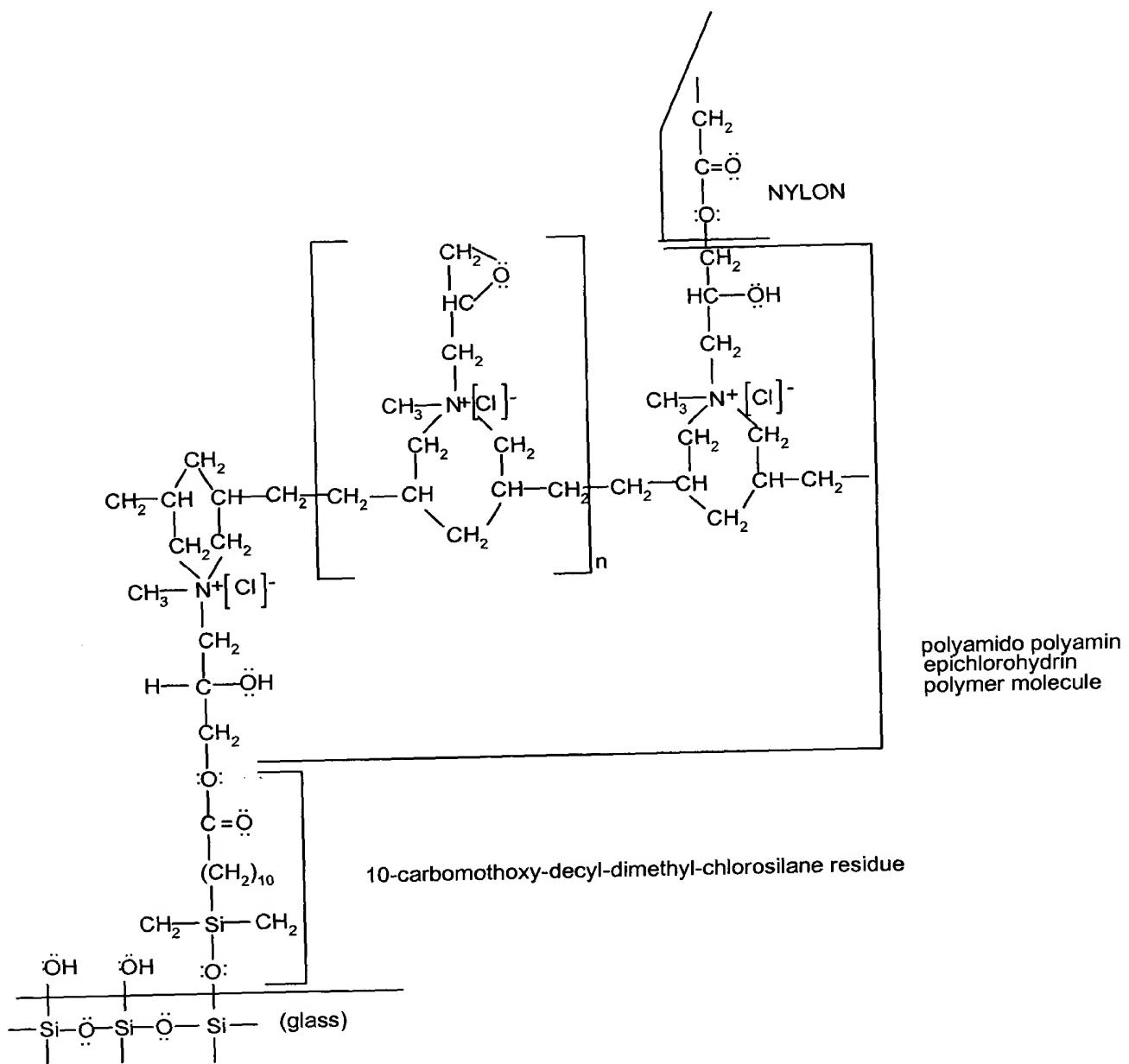
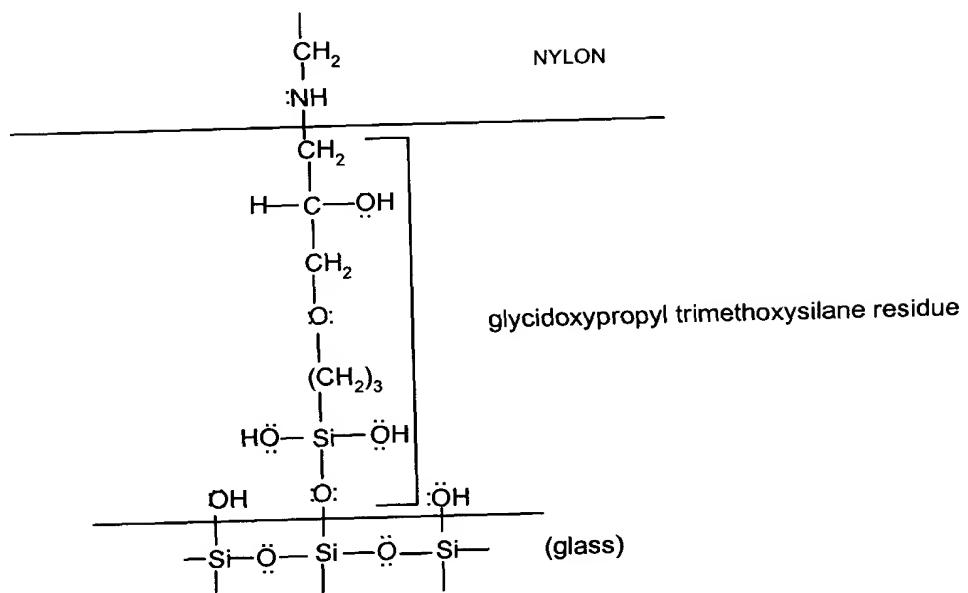
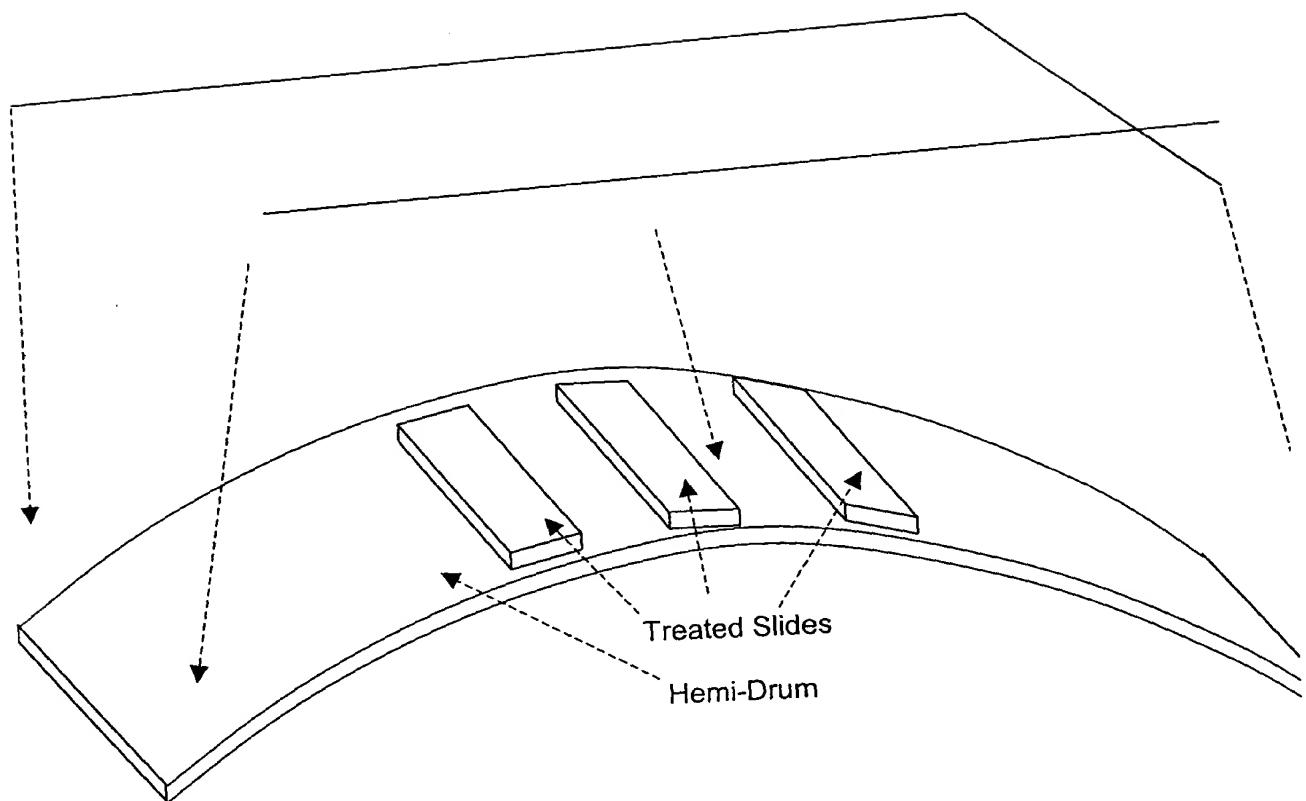


FIGURE 5C: Bond using glycidoxypipyl trimethoxysilane



**Figure 6.**



**Figure 7.**

